

MINUTES

CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE MEETING OF JUNE 2, 1994

The second meeting of the CTCDC in 1994 was held in the auditorium of the Caltrans District Office, 2829 Juan Street, San Diego on Thursday, June 2, 1994.

Chairman Dick Folkers opened the meeting at 9:05 a.m. with the introduction of members and guests.

The following members, alternates, and guests were in attendance:

ATTENDEES	ORGANIZATION	TELEPHONE
Members (Voting)		
Dick Folkers Chairman	League of California Cities, City of Palm Desert	(619) 346-0611
Wayne Tanda Vice Chairman	League of California Cities, City of San Jose	(408) 277-4304
Bruce Carter	County Supervisors Association of California, Shasta County	(916) 225-5661
Don Follett	California Highway Patrol, Sacramento	(916) 657-7222
Gary Foxen	Auto Club of Southern California, Los Angeles	(213) 741-4429
Jack Kletzman	California Department of Transportation, Sacramento	(916) 654-4715
Russ Taft	California State Automobile Association, San Francisco	(415) 565-2297
John Wallo	County Supervisors Association of California, San Luis Obispo County	(805) 781-4466
Jack Kletzman Secretary	California Department of Transportation, Sacramento	(916) 654-4715

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ATTENDEES	ORGANIZATION	TELEPHONE
Jim Baross	San Diego County Bicycle Coalition	(619) 685-7742
Rick Blunden	Caltrans, Sacramento	(916) 653- 4949
Stan Doidge	Potters Industry Inc.	(714) 539-2994
Bob Donner	Caltrans, Sacramento	(916) 654- 0036
Charles Felix	City of San Jose	(408) 277-4304
Julio Fuentes	City of San Diego	(619) 533-3176
Trev Holman	City of El Cajon	(619) 441-1653
Michael Jackson	City of San Diego	(619) 533-3131
Ed Krulikowski	City of El Cajon	(619) 441-1651
Conrad Lapinski	City of Irvine	(714) 724-7365
Tom Micone	CHP Sacramento	(916) 657-7222
Ron Miller	City of Escondido	(619) 741-4651
Dan Navone	Brite Line Industries	(209) 946-4385
Jack Navone	Brite Line Industries	(209) 367-1434
Chris Ramstead	CSAC	(818) 458-5908
Hal Rosenberg	City of Chula Vista	(619)691-5116
Karla Sutliff	Caltrans Sacramento	(916) 263-1026
Robert Wise	County of Sacramento	(916) 336-2223
Robert Zeigler	Marin County	(415) 499-6336

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MOTION: By Bruce Carter, second by John Wallo, to adopt the minutes of the San Jose meeting held on February 16, 1994. Motion carried 8-0.

89-9 EMERGENCY VEHICLE APPROACHING SIGN

R.C. Anderson did not appear. Neither Chairman Folkers or Secretary Kletzman had received any progress report.

MOTION: By Bruce Carter, second by John Wallo, to delete the item, allowing Mr. Anderson to reapply should he be able to conduct testing Motion carried 8-0.

Action: Item deleted.

90-7 BICYCLE SIGNAL HEADS

Wayne Tanda told the Committee that Dave Pelz, the Director of Public Works from the City of Davis had a status report but was unable to attend the San Diego meeting. The City is requesting a continuance and anticipates submitting data at the next CTCDC meeting. A memorandum was to have been submitted to the sponsor and the secretary and that did not occur.

Michael Jackson, Bicycle Coordinator for the City of San Diego, requested approval for a one year experiment, at the intersection of Peers Cove Way and Peers Cove Way bicycle path, similar in nature to the City of Davis project. Jackson said that Peers Cove Way is a recently reconfigured one way street which serves as an entrance to Sea World. Traffic is particularly heavy during summer months. The reconfiguration allowed the City to develop a Class I bicycle path which is a major NWSE bicycle corridor. The intersection is a combination pedestrian/bicycle path crossing a four lane one-way road at 90 .

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90-7 BICYCLE SIGNAL HEADS (continued.)

Michael Jackson told the Committee that the intent of the proposal is to reduce red time for motor vehicle traffic. This can be accomplished by using separate indications for pedestrians and bicyclists instead of the existing WALK indication. Bicyclists, the predominant cross traffic, are now being treated as pedestrians and given more green time than necessary.

The proposal is to add bicycle signal heads to existing signal posts and install loop detectors so that bicyclists would no longer have to press a button for detection. The bicycle signal heads would not be visible to motor vehicle traffic.

It is also hoped to increase respect by bicyclists, for this signal, by treating them as motor vehicles rather than pedestrians. The recently built bicycle path facility is intended primarily for bicycle use.

Bruce Carter pointed out that the loop detection signal activation in combination with the proposed shorter green phase, because of faster bicycle speeds, indicates the intent is for bicyclists to ride through the cross walk shared with pedestrians. Carter asked how the City proposes to reconcile this with the Vehicle Code requirement that bicyclists dismount in crosswalks. Jackson responded that the intent was to treat the intersection as a vehicular intersection and allow the bicyclist to ride across. John Wallo asked about pedestrian count which Jackson did not have. Jackson said that to his knowledge there isn't much pedestrian traffic. He said there were no attractions in that vicinity for pedestrians.

Don Follett thought it would be a violation of the vehicle code and asked if the traffic department had been contacted and what their opinion was concerning the conflict between walking and riding a bicycle? Were the law enforcement people willing to look the other way and what would happen if there were an accident?

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90-7 BICYCLE SIGNAL HEADS (continued.)

Michael Jackson responded that there is no requirement to make bicyclists walk across a roadway. He considers the facility to be a bicycle path. Chairman Folkers suggested that the problem could be solved if there were a crosswalk for the pedestrians on the side of the path and have the bicycles cross as vehicles. Follett concurred. Bruce Carter said that if the facility is called a roadway, then the bicycle can be treated as a vehicle. If the facility is called a crosswalk and it is striped as a crosswalk, then there probably is a violation of the Vehicle Code. Russ Taft said he has never seen a crosswalk with a striped amber centerline. Wayne Tanda asked if the problem could be resolved by using an advanced warning sign as a bicycle crossing rather than a pedestrian crossing? Jackson said he would do that if that were the Committee's recommendation. The intersection is intended primarily for bicyclists. It is not a pedestrian intersection. Jackson offered to reexamine the possibility that the crosswalk could be removed entirely and replace the pedestrian warning sign with a bicycle warning sign.

Chairman Folkers recommended that Jackson resubmit the proposal to the Committee, after determining the nature of the facility, getting some traffic volumes, and consulting with his legal and traffic departments about the concerns brought up in this discussion.

A discussion took place about the enforcement of laws applicable to bicycle use. (Vehicle Code, Section 21200.) The consensus of the Committee was that enforcement varied from area to area depending upon the impact of bicycle traffic and the priority of law enforcement. Liability issues appear to be a more serious problem.

Gary Foxen requested a written proposal for the experiment. He cautioned that the Vehicle Code does not permit regulation of traffic except where the Code authorizes it and the Code does not mention bicycle signals. He noted that the City of Davis thought that bicycle signals could be enforced, but it is unclear whether the issues had been submitted to their legal counsel. Wayne Tanda concurred, saying that he had raised the same issue with the City of Davis.

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90-7 BICYCLE SIGNAL HEADS (continued.)

John Wallo asked how the loops would be positioned. Jackson said they had not yet determined whether the bicyclist will stop at a fixed location or activate an advanced loop to allow the bicyclist to continue through the intersection unimpeded. He said they would prefer loop detectors over a push button activation device. Wallo requested ADT, approach speeds, bicycle counts, and projections to determine the usage.

Action: Item continued.

91-9 CYCLIST LOOP ACTIVATION MARKING

Rick Blunden explained that the proposed line and symbol were preferred by the California Bicycle Advisory Committee (CBAC) to other shapes, because it provides a clearer message in showing the bicyclist where to stand over the loop detector. Local agencies that will or have installed the proposed symbol, support its adoption. Don Follett commended the inclusion of a bicycle helmet on the rider in the symbol. John Wallo said that the City and County of San Luis Obispo bicycle advisory committees support the proposed symbol.

Wayne Tanda endorsed the idea of identifying the location of signal activating loops, but he remained concerned about confusion with the lane symbol and the cost of installation and maintenance of such a sophisticated symbol. He recommended something very simple such as a four inch solid circle or star which might be made of thermoplastic with an adhesive backing. This would be quick to install, have long life, not require coneing off a lane for installation or maintenance, and easy to replace. Rick Blunden responded that some cities are already using thermoplastic tape for bicycle markings. Furthermore, the proposed symbol is a voluntary standard. No one is required to use these symbols. Simpler symbols were considered by CBAC but none gave as clear a message as the proposed symbol. Because of the difference in size between the loop activation marking and the supplemental bicycle lane symbol, there has been no reported confusion between the two by those local agencies using the proposed symbol.

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91-9 CYCLIST LOOP ACTIVATION MARKING (continued.)

Rick Blunden clarified that it was the recommendation of CBAC to have the symbol approved for voluntary use by local agencies at intersections of their choice. For example, the City of Davis does not use these symbols where there are problems detecting bicycles because of too many overlays or less sensitive loop detectors. The City uses these symbols where they know the loop detectors will work and where there is significant bicycle traffic. The presumption is that Traffic Engineers will use the symbol when it is the appropriate.

Rick Blunden explained that the reason for variable dimensions on the proposed symbol is to allow local agencies to use a variety of materials. The larger size dimension minimizes paint from one part of a stencil running into another part of the stencil. The smaller size dimension is more appropriate for traffic tape and thermoplastic. The dimensions are intended to represent a range of sizes rather than two specific sizes..

Bruce Carter established that the device would be used under a "may" condition which presumes that, if any device is to be used, it will be limited to the adopted symbol. Blunden said that other methods have been used in other states but they appear to be moving toward the proposed symbol. The only difference is that the proposed symbol depicts a helmet. Carter was concerned that if the Committee voted to adopt any symbol, any slightly different symbol now in use, becomes illegal. Blunden suggested that none would be illegal until they were redone.

[Chapter 11 Rules and Regulations of the Traffic Manual states in the Introduction that "Commonly used traffic control devices, conforming to the statutory requirements, if any, in effect at the time of their installation, may continue in use until replacement is necessary because of damage or normal maintenance."]

Jim Baross said that if the proposed symbol were adopted most cyclist would easily understand the message. Most experienced cyclist try to avoid round dots. Wayne Tanda deferred to the CBAC judgment that a difference in symbol size eliminates confusion but reiterated his position that the proposal is more costly to maintain than a simple symbol and will result in fewer jurisdictions implementing the device.

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91-9 CYCLIST LOOP ACTIVATION MARKING (continued.)

In response to Tanda's question of whether this symbol applies to motorcyclists, Blunden said that the symbol was not intended for motorcyclists. It was intended for bicyclists because they are the least likely road users to be detected.

Gary Foxen wanted to know if the device would be more effective if it were limited to those intersections where there is a detection problem. Jim Baross said that where there is a problem with the sensitivity, the sensitivity should be fixed. Baross envisions that, because of the cost, local jurisdictions would not use the symbol unless there were complaints, and sensitivity adjustments do not resolve the problem without the bicycle being in a particular position. Rick Blunden recommended to allow the Traffic Engineer the latitude to make the decision as to which intersections require a symbol.

Chairman Folkers said that his city is finding that the circular loop has better sensitivity. Rick Blunden said that the trend is for bicycles to be made more with synthetic materials instead of metal, which raises the issue of any detection being possible. Given a bicycle made of standard metal tubing, Blunden feels some loop detector designs are superior to others. Folkers preferred the proposed standard have a specific size rather than a range of sizes. Blunden agreed.

Ron Miller raised the issue of the necessity for maintenance to keep good records of symbol installations. The intent is to tell cyclists exactly where to position the bicycle for loop detection. That position needs to be correct, especially for symbol replacement, or a lot of complaints will be generated.

Chairman Folkers determined that the vote would be for the concept and that the Committee would subsequently be presented with guidelines of how and where to use the device. The device is intended for use by bicyclist, but can be used by other types of vehicles. Wayne Tanda recommended an educational program accompany the guidelines.

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91-9 CYCLIST LOOP ACTIVATION MARKING (continued.)

MOTION: By John Wallo, second by Russ Taft, to adopt the proposed bicycle symbol for identifying loop detectors. Motion carried 7-1.

ACTION: Item continued.

92-4 TRAFFIC SIGNAL DIMMING

Charlie Felix is the signal systems engineer for the City of San Jose and provided additional information on an experiment authorized two years ago. The experiment involved both the use of LED's for red indications and the use of dimming devices.

Charlie Felix said that with respect to signal illumination, both State and Federal manuals refer to ITE standards. The MUTCD uses the term "should" and Caltrans uses the term "shall" when referring to conforming to ITE standards. Both provide for the dimming of programmed vehicle heads and flashing yellow beacons. All city signal projects are required to conform to State standards.

Charlie Felix said that at the last meeting, data had been given for 20% of the test intersections. The City has subsequently evaluated data from all 50 dimming test intersections. In the prior year there were 82 accidents and this number decreased to 71 during a year of testing. The data is limited to reported accidents that occurred in the intersections during the hours that dimming was in effect. That is from 9:30 pm to 5:30 am.

There was no significant change in the number of accidents at any individual test intersection. These statistics were presented in a supplemental report which included a characterization of each intersection by identification number, ADT, NEMA phases, and accident rate. There was no correlation between the number of accidents and the type of intersection. City staff reviewed all 71 accident reports and found no cases where the motorist or police officer attributed dimming as a contributing factor to the accident.

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92-4 TRAFFIC SIGNAL DIMMING (continued.)

In a literature search, Charlie Felix found one report by the International Committee on Illumination discussing problems caused by glare conditions from signals in full brightness at nighttime. There are two FHWA reports on dimming at intersections. One called "The Dimming of Traffic Signals" and the other called "Traffic Signal Brightness: An Examination of Nighttime Dimming." The conclusion of the latter study was that the 30% level was appropriate. The study recommended developing standards for inclusion in the MUTCD.

The National Committee on Uniform Traffic Control Devices made the recommendation to allow dimming of intersections in the MUTCD. The ITE Technical Committee 4S-10 published articles in the journal relating to the use of dimming at intersections. Felix said that none of these articles indicated that dimming caused any problem.

Charlie Felix requested that the City of San Jose be allowed to expand the current study by an additional 350 intersections. The California Department of Energy has reviewed the project and has agreed to fund the project through the Petroleum Violation Escrow Account. The accident and energy savings will be analyzed in a similar manner to that presented for the initial study. There will also be a survey of drivers perceptions. The survey for the expanded test would include weather conditions, age classification of drivers, roadway conditions, speed limits, visibility, and other parameters. The purpose of the expanded test is to compile statistically significant data so that the State can formulate a signal dimming policy.

Charlie Felix concluded that the initial test had demonstrated only benefits. The test had experienced an accident rate reduction. Even though the preliminary data is not statistically significant, there was no indication of any negative impact from dimming. The City's review committee, composed of seven engineers and technicians, subjectively feels that dimming provided better visibility of signal indications under night conditions. This technology provided energy cost savings.

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92-4 TRAFFIC SIGNAL DIMMING (continued.)

There is a history of studies that support the City's findings and its recommendations. The MUTCD using an advisory condition allows for deviation from the ITE standards. The City of San Jose recommends that dimming be one of the tools available to local agencies to provide savings in energy costs. Signal energy costs represent a substantial allocation of funds.

John Wallo questioned whether there would be any additional knowledge gathered if the experiment were expanded by another 350 intersections. Charlie Felix responded that the Committee felt that 50 intersections was not a large enough sample to be statistically significant. More data was needed so that the Committee would have a reasonable basis to determine if dimming were an appropriate way to save energy costs.

Don Follett asked about the City's legal opinion. Felix responded that legal counsel had been consulted and their opinion was that, as long as the test was part of an engineering analysis, it was appropriate. There was the provision that should any negative effects become apparent during the experiment, the City would immediately close down that installation. Since dimming is regulated by a function built into existing controllers it would be an easy task to discontinue the installation. Don Follett suggested that the review committee be expanded to include law enforcement.

Wayne Tanda told the Committee that the City's position is that Federal standards appear to allow deviation from ITE standards. What is being requested is permission from the State of California, which mandates adherence to ITE standards, to continue testing and provide additional information based on the initial findings that signal dimming appears to have no detrimental effects and might produce significant savings.

Chairman Folkers asked if there had been contact at the national level to see what efforts are being made along this line. Charles Felix said that most of the reports were done in the early 1980's and there seems to be no current publications. He noted that recommendations for implementing dimming were made and died, not from opposition, but from inaction. The reasons for this are unknown.

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92-4 TRAFFIC SIGNAL DIMMING (continued.)

Charles Felix said that the accident data were all reported accidents that were in an intersection or intersection related during the 9:30 pm to 5:30 am time span. Gary Foxen requested a breakdown between injury and non-injury accidents. Foxen is concerned about losing touch with what is happening because of the number of non reported "property damage only" accidents. Foxen asked if any information had been uncovered in the literature search to resolve the problem of signals going on flash because of internal programming. Felix responded that the solid state controllers now in use are totally different from the external equipment required for signal dimming in the 1980's, when the literature was published. Older equipment is not a problem and the only change required for dimming is a change in the software algorithm.

Chris Ramstead asked if there were any significant change in accident patterns. Felix responded that signal dimming does not really affect left turn, pedestrian, rear end, or right angle accidents. There was nothing readily apparent from the accident reports but Felix agreed to examine this possibility in the expanded test. Ramstead asked what elements were being used to select the intersections for the expanded studies. Felix said they wanted to select intersections which represented a comparison of conditions. Large, small, downtown, and residential intersections were selected. There are no rural intersections. Ramstead suggested that some evaluation criteria be used in selecting of intersections for the experiment. Elements such as prior history of night time accidents, or higher than average night time accidents might be considered. Felix said that so far that type of correlation has not appeared.

Hal Rosenberg asked if any consideration had been given to the effect of dimming on the elderly. Felix replied that the age of the motorists involved in accidents were reviewed and there was no preponderance of older drivers. Rosenberg asked how much light was deemed adequate. Felix said that in examining the daytime contrast between an illuminated signal and the ambient light condition, it is evident that the contrast to nighttime vision, even when the indication is dimmed, is much enhanced.

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92-4 TRAFFIC SIGNAL DIMMING (continued.)

In response to questions concerning other means for reducing power consumption and retaining ITE standards, Bob Donner said that the State's last order for lamps for warehouse supply were for the 51 watt Phillips lamps. This lamp meets ITE standards. Donner said the small black spot problem still exists. It is an esthetic problem, but not readily noticeable. It doesn't affect the candle power distribution number.

MOTION: By Jack Kletzman, second by Don Follett to expand the City of San Jose's experiment by an additional 350 intersections. Motion carried 8-0.

ACTION: Item tabled.

92-18 GOLF CART SYMBOL SIGNS

Chairman Folkers said that the City of Palm Desert continues to work with the FHWA but there are no further developments.

ACTION: Item continued.

93-5 BIKE LANE DELINEATION ACROSS FREEWAY RAMPS

Karla Sutliff from the Caltrans Office of Project Planning and Design presented a proposal for two standards of bike lane delineation on conventional roads crossing freeway ramps. Sutliff reminded the Committee that a Class I bikeway, or a "bike path," is a completely separate facility. A Class II bikeway, or a "bike lane," is a striped lane provided for one-way bike travel on a street or highway. There is usually pavement delineation, traffic striping, and signing. A Class III bikeway, or a "bike route," is a shared facility between bikes, automobiles, and pedestrians.

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93-5 BIKE LANE DELINEATION ACROSS FREEWAY RAMPS (continued.)

Karla Sutliff said that in 1974 the Highway Design Manual had a figure for Bike Lane Ramp Crossings. In 1978 it was updated and retained for about five years. In January of 1987 the figure was dropped. From that time there has been no guidance to assist designers in what to do with bike lanes as they approach on and off ramps. In June of 1992, the County of Sacramento requested CTCDC to establish guidelines for signs and delineation for bike lanes across freeway ramps. The request was forwarded to CBAC which asked for assistance from the Office of Project Planning and Design .

The Office of Project Planning and Design developed the proposed standards in consultation with CBAC, Caltrans Headquarters Traffic Operations, Southern California Automobile Club, Orange County EPA, Caltrans District 12 Bicycle Program Coordinator, Orange County Bicycle Association, and the City of Cupertino.

The proposed standards show a city street crossing an on-ramp. At some point approaching the on-ramp, the bike lane ends and converts to a bike route. The traffic striping is dropped, there is a BIKE LANE ENDS sign, and a BIKE ROUTE sign. The intent is to provide guidance to both the recreational and the experienced bicycle rider. The 12' through lane has been increased to 14', while maintaining a constant shoulder width. The purpose is to allow the recreational cyclist to continue on the shoulder to the ramp, cross at the crosswalk, and continue through the interchange. Alternatively, at the point where the bike lane ends, the experienced cyclist will move into the 14' through lane, when it is safe to do so, and continue through the interchange. The bike route goes through the interchange area, past both the on and off ramp, and then reverts back to a bike lane.

The difference between the two standards is that the larger angled ramp configuration is proposed where there are heavy bike traffic generators and low traffic speeds. The more acute angled ramp configuration is for higher speed traffic. As a minimum these standards provide a starting point for designers developing bicycle facilities which cross new or existing freeway ramps.

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93-5 BIKE LANE DELINEATION ACROSS FREEWAY RAMPS (continued.)

Hal Rosenberg recapped the proposed standard as going from a Class II to a Class III facility. He felt the striping patterns were unclear. Sutliff responded that the diagrams were not intended to show striping patterns but were meant to convey how bicyclists were going to get across the interchange. But in answer to the question, she said that in this situation, the local street would not have an edge line for the shoulder. At the location where the bike lane ends, there is no stripe between the 12' lane and the 4' or 5' shoulder. Rosenberg asked why the bike lane did not continue to the cross walk. Sutliff responded that the intent was to provide room for the more experience bicyclist to merge into the 14' shared lane rather than forcing them to the crosswalk. It also sends the message that a little more caution is needed because the bicyclist is no longer protected by a bike lane.

Hal Rosenberg said he thought there was a standard for a bike lane which would be delineated between the through and right turn lane. The cyclist going straight through would continue going straight and parallel through traffic. Sutliff said that Rosenberg was referring to a standard for at-grade intersections and the proposed standard was for interchanges which contend with a higher traffic speed. Chairman Folkers observed that with the fixed configuration of lane widths there was no way to continue a 5' bike lane.

Sutliff pointed out that at the present time there is no standard for interchanges. Some of the Committee members felt that might be safer. Rick Blunden said that even if there were a bike lane stripe up to the ramp, the Vehicle Code allows a bicyclist to move out of the bike lane to the left to move across the ramp. Blunden said that it was important to drop the bike lane stripe to avoid a conflict further up the ramp where there are two right turning lanes. There is no possible merge, when the bicyclist is on the right edge of the roadway, across two lanes. Sutliff said felt that it was better to offer some guidance to the bicyclist rather than to leave matters where they are, with no standard.

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93-5 BIKE LANE DELINEATION ACROSS FREEWAY RAMPS (continued.)

Gary Foxen asked if the proposed standards were for the Traffic Manual or the Highway Design Manual. Sutliff said that the appropriate manual has not yet been determined, but her office felt it should be in the Highway Design Manual because the Street and Highway Code, Section 2374, requires Caltrans to establish design criteria for bikeways. She said that most likely some of the material will go in each manual.

Bruce Carter said the diagrams were confusing because they look like there is striping for vehicles and the bike lane is striped up to a certain point, and then there is no stripe. Sutliff agreed that some of the confusion is due to differences in what the two manuals try to show. This needs to be clarified in the Traffic Manual. The Highway Design Manual does not attempt to show striping. The dashed lines do not depict a stripe pattern. Lines in the presentation diagrams were intended to designate lanes versus shoulders. Engineers, using the manual, understand that the diagram is conveying a concept of how to carry the bike lane and bike route through an interchange.

Harold Rosenberg asked if the diagram was showing two 12' lanes and a 5' area. Sutliff responded that a note in the figure said that the shoulder width shall not be reduced through the interchange area. Standards call for a 4' minimum shoulder, 5' if there is a curb and gutter.

Chris Ramstead asked why a left arrow as opposed to a vertical arrow was used at the ramp entrance. Sutliff said that the purpose was to reinforce the prohibition of bicyclists entering the ramp. Ramstead felt that the regulatory sign would handle that and wondered if the guide sign should not be located prior to the corner with a vertical arrow. Rick Blunden said that CBAC did not feel that was necessary. Russ Taft said that the experienced bicyclist will know what to do and the arrow is intended to direct the inexperienced bicyclist when the regulatory sign indicates not to progress up the ramp.

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93-5 BIKE LANE DELINEATION ACROSS FREEWAY RAMPS (continued.)

Bruce Carter asked if a sign would also be needed to tell bicyclists they are supposed to dismount and act as a pedestrian upon entering the cross walk. Most bicyclist don't dismount. Don Follett said that Section 21200 treats bicycles operating on the highway the same as vehicles for the purpose of law enforcement. If a bicyclist opts to use the crosswalk, and doesn't dismount, he is technically violating a required right turn, and subject to citation. Follett envisioned the proposed standard as being used where parents and children ride together and would prefer not to move alongside traffic.

Julio Fuentes asked if the center lane were 14' to provide room both vehicle and bicycle. Sutliff responded yes. Gary Foxen said he supported the wider lane, but wondered what would happen if the 14' width were not available. Sutliff said the proposed standard is not mandatory and may be modified to meet field conditions. Bruce Carter suggested that the conditional nature be included in the notes. Sutliff pointed out that the Highway Design Manual denotes mandatory instructions with bold print. In the beginning of the manual there was an explanation of the various types of print and its corresponding degree of design latitude.

Wayne Tanda suggested that if the proposed standard is not clearly labeled as a guideline, use of the terms "should" and "shall" be reviewed, because, from a Traffic perspective, the courts traditionally recognize this language. He also recommended that, in the Traffic Manual, figures clearly differentiate striping from geometrical features. Tanda established that the note referring to accommodating design vehicle off-tracking was a design note and not intended for use in the Traffic Manual. Tanda asked if the distance between the edge of traveled way and the edge of shoulder was 4' and how is an insufficient roadway width handled? Sutliff said the minimum distance was 4', or 5' with a curb and gutter, and that a design exception was needed where the shoulder standards could not be met on State right of way.

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93-5 BIKE LANE DELINEATION ACROSS FREEWAY RAMPS (continued.)

John Wallo wanted time to review the proposed standard with his staff. Gary Foxen noted that the only appropriate elements for Committee deliberation are the signing and marking portions of the proposed standard. Chairman Folkers felt that bicyclists being directed to travel through a crosswalk constituted an entrapment. The consensus of the Committee was that some time was needed to get input from their respective design staffs. Wayne Tanda suggested that the proposed standard be segregated into two portions. One for the Traffic Manual and one for the Highway Design Manual.

ACTION: Item continued.

93-12 PEDESTRIAN CROSSWALKS

Robert Zeigler, representing the County of Marin, said that Farhad Mansourian is in the process of collecting recent reports on crosswalk studies done by various agencies and institutions. Mansourian has approached U. C. Berkeley to see if students could be made available for assistance on this project. Gary Foxen offered to send Mansourian a copy of a new study completed by AAA.

ACTION: Item continued.

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93-15 LANE REDUCTION SIGNING

Gary Foxen recalled that the Committee had been reviewing the Traffic Manual's signing and striping diagram for two to one lane reduction. Foxen was concerned that the diagram shows a lane line extending beyond the DO NOT PASS sign. He believes this sends a mixed message. Caltrans had agreed to make some observations of motorists reaction to this set up with the striping blacked out. Jack Kletzman said that Perry Lowden had seen enough situations to make marking out unnecessary and that it was his opinion that there was no problem. Foxen said that he still had concerns that the lane line indicates one message and the sign indicates a different message. John Wallo explained that he had brought this issue to Foxen because of an elderly lady who was cited by the CHP for making that maneuver. The sign clearly says not to pass, she had the striping pattern, she completed her pass, was cited, and she was upset. Wallo concurs with Foxen in that we are saying do not pass, yet the striping pattern indicates that you may pass. He feels it is confusing and that there is a conflict.

Perry Lowden said nothing should be done. He feels there is no problem. If the lady was cited for completing a pass it was a mistake. If she had started to pass after the sign she should be cited. Lowden asked what alternative was being proposed? Wallo said he went to the site and has seen many motorists do the same thing. Lowden said that it was acceptable to complete the pass after the sign and most likely she started to pass after the sign. Foxen suggested eliminating the lane stripe after the sign. Lowden said it was important to keep the traffic separated in the transition and allow them to merge by order of position.

John Wallo suggested eliminating the DO NOT PASS sign. Lowden said that motorists need, at some point, to be told they can no longer pass. Chairman Folkers suggested the lane reduction sign tells motorists they have to merge. Lowden said its easier to enforce if the sign is retained. Don Follett suggested it may have been a judgment call by the officer.

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93-15 LANE REDUCTION SIGNING (continued.)

Gary Foxen said he wasn't trying to make an issue of one person getting upset because of a ticket. He is concerned with many unsafe passes being encouraged because of the continuation of the lane line beyond the DO NOT PASS sign. Perry Lowden said that he has a location just north of the Route 99 /70 split on Route 99 where the stripe stops at the DO NOT PASS sign and he doesn't like it. Chris Ramstead said he believed the DO NOT PASS sign is necessary because it provides emphasis and allows enforcement. He wants to be able to tell the motorist where it is not safe to initiate passing maneuvers. John Wallo asked why the pennant sign wasn't used in California. Lowden said that in 1974 the CTCDC conducted a two year study and concluded they had no benefit.

Wayne Tanda said he thought the sign meant that, motorists in the number one lane, cannot move over to the number two lane to pass. It doesn't mean that, motorits in a lead position in the number two lane, can't merge in front of someone in the number one lane. John Wallo explained that the existing condition was a three lane arterial facility, 55 mph and above, ADT of 18,000-20,000, with two lanes westbound. He had observed both lanes are full and motorists merging beyond the DO NOT PASS sign. Wallo is unsure whether that can be categorized as a passing maneuver. Tanda views that description as a merge and he interprets passing as going into the number two lane to pass someone in the number one lane.

John Wallo said Caltrans is using DO NOT PASS ON BRIDGE signs on narrow bridges which he assumes means that motorists in the number two lane must hold that position. Perry Lowden said that the DO NOT PASS sign is to tell motorist to merge in order of position without passing. Wayne Tanda asked if a slow car is in the number one lane must a faster car in the number two lane slow down and merge behind the slow car? Lowden said yes. Don Follett said that the answer was yes, if one car is ahead, that car enjoys the privilege of immediate use of the roadway. He said that, in twenty seven years of enforcement experience, this issue hasn't been a problem. One incident shouldn't determine the standard, especially when all the facts of the citation haven't been presented to the Committee.

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93-15 LANE REDUCTION SIGNING (continued.)

Chairman Folkers established that the incident occurred on a county road. John Wallo said that counties wanted to follow State standards. Gary Foxen thought this was similar to the RIGHT LANE MUST EXIT situation where the advanced warning sign was changed from regulatory to warning and that solved the problem. Perry Lowden said there was no problem. Lowden said he had checked twenty locations and there was no accident problem. Wayne Tanda asked if a car in the number one lane, traveling faster than a car in the number two lane, would legally have to slow down and not pass the slower car? Follett said yes. Bruce Carter said that realistically, the transition area would be used for the merge and that is the desired results. Russ Taft established that the sign does not prevent completing a passing movement. Wallo said the Committee can't agree with what is meant by the signing and striping, it's unclear to the motorist, and there are no problems. He concluded that the DO NOT PASS sign could be removed and it would make no difference.

Chairman Folkers, referring to page 6-37 of the Traffic Manual, said that he did not think the sign could be eliminated based on note 6. Note 6 says R63 signs should not be used where two or more lanes remain after a lane is dropped. Lowden said the sign was not needed because, with two or more remaining lanes, a motorist could still pass. Tanda said that, by implication, the sign is a "should" rather than a "shall" condition but still lacks consistency. Bruce Carter thinks that the transition area is going to be used for merging whether they are passing or not, and there is no safety issue.

MOTION: By Bruce Carter, second by John Wallo to drop the DO NOT PASS sign.
Motion carried 6-2.

ACTION: Item completed.

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93-17 STOP SIGN SAFETY WALKER

Chairman Folkers told the Committee that neither he nor the Secretary had been contacted and recommended the item be deleted.

MOTION: By Gary Foxen, second by Bruce Carter to delete the item.
Motion carried 8-0.

ACTION: Item deleted.

94-1 BICYCLE SIGNAL TIMING

Jack Kletzman said the CBAC requested a continuance to reconsider their proposal.

ACTION: Item continued.

94-2 STOP SIGNS, "4-WAY STOP" PLATE

Harold Rosenberg explained that there is a committee called SANTEC, the San Diego Traffic Engineers Council, whose purpose is to foster uniformity in planning and traffic operation in the region. Ed Krulikowski, the chairman of SANTEC, explained his committee was concerned about AB 2704. SANTEC feels that the issue of 4-WAY STOP or ALL WAY STOP plates is correctly covered in the Traffic Manual as a "should" condition. AB 2704 proposes to changes this to a "shall" or mandatory condition. SANTEC is concerned about uniformity and the potential liability. Agencies may not have sufficient sign inventories. SANTEC intends to write Assembly member Karnette of its opposition and wishes to encourage CTCDC to also voice their opposition.

Bruce Carter advised the Committee that in 1988 it was recommended that these plates be erected as a "may" condition. John Wallo said that the impetus for the legislation was the lack of uniformity in the application of the plates. Wallo noted that there were no guidelines as to when to use these plates. A poll of representatives indicated differing policies on the use of these plates.

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94-2 STOP SIGNS, "4-WAY STOP" PLATE (continued.)

Russ Taft said that in rural areas with high speed cross traffic, some intersections use a plate with CROSS TRAFFIC DOES NOT STOP. Bruce Carter said that the issue is whether the traffic engineer or the Vehicle Code determines when plates are used. Wallo suggested that the Legislature may feel compelled to step in because of the lack of uniformity in sign usage. Ed Krulikowski said that SANTEC feels it is more appropriate for the CTCDC to rectify any policy issue rather than for the Legislators to make it a mandatory condition. Bruce Carter understood that AB 2704 had been amended to apply to new installations only. Harold Rosenberg feels the ALL WAY STOP plate is inappropriate at the intersection of a minor and major street because it gives a false sense of security. Some traffic engineers are opposed to the ALL WAY STOP plate.

Chris Ramstead said his agency was opposed to the legislation because they think CTCDC is a more appropriate forum than the Legislature for deciding issues on traffic control devices. Ramstead said the CROSS TRAFFIC DOES NOT STOP is used as a reactive sign in areas where there had been accidents. A lot of times, in desert areas, it is difficult to distinguish the main road from the side road. He said that the problem with a 4-WAY STOP plate, other than cost, is that it encourages a rolling stop. This detriment is outweighed by the benefit of telling motorists that the intersection has an all-way stop. Ramstead said that LA County Department of Public Works recommends that the plates become mandatory.

Perry Lowden agreed with Ramstead that the CROSS TRAFFIC DOES NOT STOP is a "problem location" sign. One use of the sign was for high speed roads with major road intersections. In this situation motorists had come through a number of 4-way stops and then have to cross a high speed road. It is intended to prevent accidents caused by vehicles stopping and then pulling out in front of high speed traffic.

Gary Foxen cautioned that ALL WAY STOP plates could make motorists more aggressive. There have been no definitive studies. Conrad Lapinski said he attended the meeting in 1988 when the Committee wanted to drop the plates entirely and compromised at a "may" condition. He feels there is no rationale for these plates because the Vehicle Code requires a motorist to stop at a STOP sign and not to proceed until it's safe to do so.

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94-2 STOP SIGNS, "4-WAY STOP" PLATE (continued.)

Bruce Carter believes this a good example of resolving the problem of a traffic control device, which isn't being used properly, with another sign. Jack Kletzman agreed with Lapinski that the plates offer no additional information at all. When motorists see a STOP sign, they are supposed to stop and make sure it's clear before proceeding. He advocates doing away with the plates, but in order to give the traffic engineer more latitude, accepts the "may" condition.

The consensus of the Committee was that traffic control devices should not be legislated. Gary Foxen suggested this might be a matter for the parent organizations to handle. John Wallo said that AB 2704 went from the Assembly Transportation Committee to the Ways and Means Committee and the County Engineers Association recommended they oppose the bill. Perry Lowden agreed with Foxen to let the parent organizations deal with the Legislation. Ed Krulikowski said that SANTEC, representing the San Diego area, will send such a letter.

A motion to delete the plates was being proposed when Wayne Tanda observed that something will likely happen to the legislation within the next three months. If the legislation is passed then Committee action to delete is academic, and he suggested that we react to whatever legislation is enacted. Russ Taft warned that eliminating the plates might be viewed as a reaction, not to the value of the plates, but to the attempt to enact traffic control device legislation.

Perry Lowden said the plates were not for use on State Highways. Gary Foxen noted that both State and Federal Manuals call for a "should" condition. Jack Kletzman said that the intent of the State was to follow the 1988 CTCDC recommendation and should be a "may" condition.

MOTION: By Jack Kletzman, second by Bruce Carter to defer any Legislative response to the parent organizations. Motion carried 8-0.

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94-2 STOP SIGNS, "4-WAY STOP" PLATE (continued.)

The consensus of the Committee was that further discussions were needed once the Legislature took action. An examination of the intentions of State and Federal policies and the establishment of proposed guidelines are anticipated.

ACTION: Item continued.

[It appears that the Assembly Ways and Means Committee has defeated AB 2704 for lack of a motion.]

94-3 STOP SIGNS AT MID BLOCK

Gary Foxen said that legislation to allow the placement of STOP signs at mid-block locations had been enacted. Foxen said that these signs were to be used for safety purposes but there was no definition of what that meant. He noted that guidelines were available for STOP signs at intersections and requested that the Committee develop mid-block guidelines. Foxen recommended a sub-committee be established for that purpose. Foxen suspects the legislation was enacted to legalize a STOP sign at a private driveway in Los Angeles. A sub-committee was formed with John Wallo, Wayne Tanda, and Gary Foxen as the Chairman.

John Wallo asked why this would be treated any differently from those warrants normally associated with an intersection. Gary Foxen responded that existing law allowed local agencies to install traffic control devices on a private road or driveway, and in that section, the road or driveway was defined as an intersection. This new law allows the installation of STOP signs at a crosswalk in a mid-block location without any driveway. Jack Kletzman pointed out that there were guidelines for mid-block crossings (Traffic Manual Section 6-02.12). Chairman Folkers suggested the sub-committee look at this section and see if it is adequate.

ACTION: Item continued.

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94-4 LIGHT RAIL MANUAL REVISED

Russ Taft said that his sub-committee would meet on the 27th and 28th to address comments on the draft of the Light Rail Manual. Copies of the revised draft will be submitted to Committee members for their approval. If changes are necessary the sub-committee would reconvene. Because of the cross jurisdictional nature of the material, Caltrans will try to publish the Light Rail Manual as a stand alone document.

ACTION: Item continued.

94-5 TRAFFIC SIGNAL COORDINATION

John Wallo said that Dick Barrera was ill and asked for a continuance. An unidentified member of the audience said that AB 3418 had been amended twice. Wayne Tanda observed that even in the amended version the bill says that the State will adopt a standard protocol in consultation with local authorities. He asked if the CTCDC will be the body that the State will consult with? No one knew.

Bruce Carter asked why the legislation was needed if everyone was agreeable to the proposal? Wayne Tanda responded that if the cost exceeds \$1 million, then the expense of retrofitting might be reimbursable to the local agencies. He also said the legislation provides a mandate to the local agencies to comply. Gary Foxen felt the legislation encourages manufacturers to share proprietary information so that a common protocol can be adopted.

ACTION: Item continued.

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94-6 TRAFFIC CONES, CHILDREN PLAYING

Gary Foxen told the Committee that he had been contacted by the County of San Diego about a Mrs. Noonan who came up with the idea of using a construction cone with the words CHILDREN PLAYING and was promoting it for use on public streets to warn traffic of the presence of children. She apparently has persuaded TOYS R US to market the cone and it is being sold in the San Diego area. Foxen said that it was contrary to current approved standards. Chairman Folkers asked for clarification of the cone placement. Foxen said that a newspaper article photograph showed a mother with two children on tricycles in the street with the cone in the street. He recommended sending a letter to Mrs. Noonan suggesting that these cones not be put in the roadbed.

Bruce Carter said that traffic engineers continually receive requests to put up signs warning motorists that children are playing in the streets. Almost no agency puts up that kind of sign because of the liability and because it is not a recognized traffic control device. He felt they were making a playground out of the street.

Bruce Carter said he had not seen these cones in Shasta County. Carter said cones aren't put out in the streets, the kids just play there. John Wallo said his county would just notify the CHP and they would remove the cones. Carter responded that the newspaper article quoted a San Diego Police Department spokesperson as saying it was a good idea.

Ron Miller said the City of Escondido wrote Mrs. Noonan an informal letter, via Mr. Riggs Staff Writer for the San Diego Union, noting that the device was in violation of the Vehicle Code and that it encouraged children to play in the streets. Miller said that Mrs. Noonan responded that she was just a mother looking out for the safety of her child and the manufacture and distribution of the cone was free enterprise. Miller had no knowledge of whether the cones were placed in the roadway of the City of Escondido.

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94-6 TRAFFIC CONES, CHILDREN PLAYING (continued.)

An unidentified member of the audience asked if it were appropriate for the Committee to send a letter to the manufacturer or distributor. Chairman Folkers felt it was. Charles Felix asked if there were instructions which warned not to put the devices on streets. The consensus was that it was evident the devices were meant for street use. Bruce Carter suggested a letter to Mrs. Noonan, TOYS R US, and the materials service company. Chairman Folkers pointed out that there would be no problem if the cone was placed on private property, unless otherwise prohibited by county ordinance.

Wayne Tanda said he believed the by laws made the Committee responsible for disseminating information regarding traffic control devices throughout the State. It would be appropriate for CTCDC to prepare a response under the Chairman's signature to Mrs. Noonan, the manufacturer, the distributor, the City of San Deigo, and to all constituents. Gary Foxen observed that this could be a politically sensitive situation. Russ Taft suggested that rather than just dismiss Mrs. Noonan, that she be given an opportunity to appear before the Committee.

MOTION: By Wayne Tanda, second by Bruce Carter to prepare a response by correspondence under the signature of the Chairman. Motion carried 7-0.

ACTION: Item continued.

94-7 BIKE LANE SYMBOL REVISION

The Committee agreed to add a helmet to the existing bicycle lane symbol without discussion.

MOTION: By Jack Kletzman, second by Bruce Carter to adopt the revised bicycle lane symbol. Motion carried 8-0.

ACTION: Item completed.

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94-8 RADAR ENFORCED SUPPLEMENTAL PLATE

John Wallo told the Committee that the CHP was starting to enforce existing speed zones with radar by agreement with the counties. The CHP training manual refers to two signs, SPEED CHECKED BY RADAR (R48) and RADAR ENFORCED. The latter sign is smaller and is a supplemental plate for R2 signs. Currently there is no such approved sign. Wallo recommended the approval of the RADAR ENFORCED sign.

Jack Kletzman said Caltrans would have no objection as long as it only applied to local roads. He asked where the plates would be required. Wallo, citing the manual, said the sign policy is departmentally and not statutorily required. Radar enforcement signs will be installed by the county on all targeted roads at locations mutually selected by the county and the CHP area commander. In general, signs should be posted at the beginning of a radar enforced zone and at sufficiently frequent intervals to warn transient traffic entering from major intersecting roads. The county is responsible for obtaining encroachment permits from Caltrans to place signs on State routes in county programs. Bruce Carter established that the proposed plate is not a replacement for the R48 sign. Carter said that with the proposed plate you need a speed limit sign while the R48 doesn't require any other sign.

Gary Foxen suggested the proposed sign policy should be broadened to include other law enforcement agencies. Russ Taft suggested "... other than a state highway, where authority to use radar has been granted..." Chris Ramstead supported Wallo's proposed sign and Foxen's policy generalization. He suggested "...where local law enforcement agency has received authority to use radar..." and "... this sign may be installed on State highways under encroachment permit..." Russ Taft felt "local law enforcement" would preclude the CHP and wanted to go back to the original wording so that any law enforcement could work with any political entity. Bruce Carter pointed out that the verbiage about encroachment is unnecessary because the State wants to exclude State routes from the use of this sign.

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94-8 RADAR ENFORCED SUPPLEMENTAL PLATE (continued.)

Chris Ramstead said that the State has granted L.A. County authority to use radar on State highways. Local counties are the entities funding CHP enforcement on State routes. Jack Kletzman responded that the proposed sign is not intended for State use. The R48 is the one authorized for State highways and it is a stand alone sign. State policy is to leave speed limit signs unencumbered.

Bruce Carter recommended that the policy be a "may" condition to which the Committee agreed. Chairman Folkers asked if the policy wording was acceptable. Jack Kletzman recommended that the CHP be consulted. [The CHP representative was no longer present.] Wayne Tanda said we were talking about a mandatory sign, if the CHP has been requested by the local jurisdiction to enforce, but there are some cities who choose to use these signs to reinforce the fact that they typically use radar. Chairman Folkers pointed out the proposed policy would not preclude that use. Tanda said he was unsure what use the CHP had in mind for the sign. Kletzman said that was what he wanted to clarify. Tanda asked why there was a freeway sign size on the front of the specification sheet, when the back precluded use on State highways. Kletzman said that it was in error and would be corrected. Tanda suggested that the standard be clarified and be brought back at the next meeting.

MOTION: By John Wallo, second by Jack Kletzman to revise the policy in accordance with the discussion and bring the proposal back to the next meeting.

Motion carried 7-0.

ACTION: Item continued.

ADJOURNMENT

MOTION: By Bruce Carter, second by John Wallo, for adjournment.

Motion carried 7-0. The meeting was adjourned at 3:45 pm.